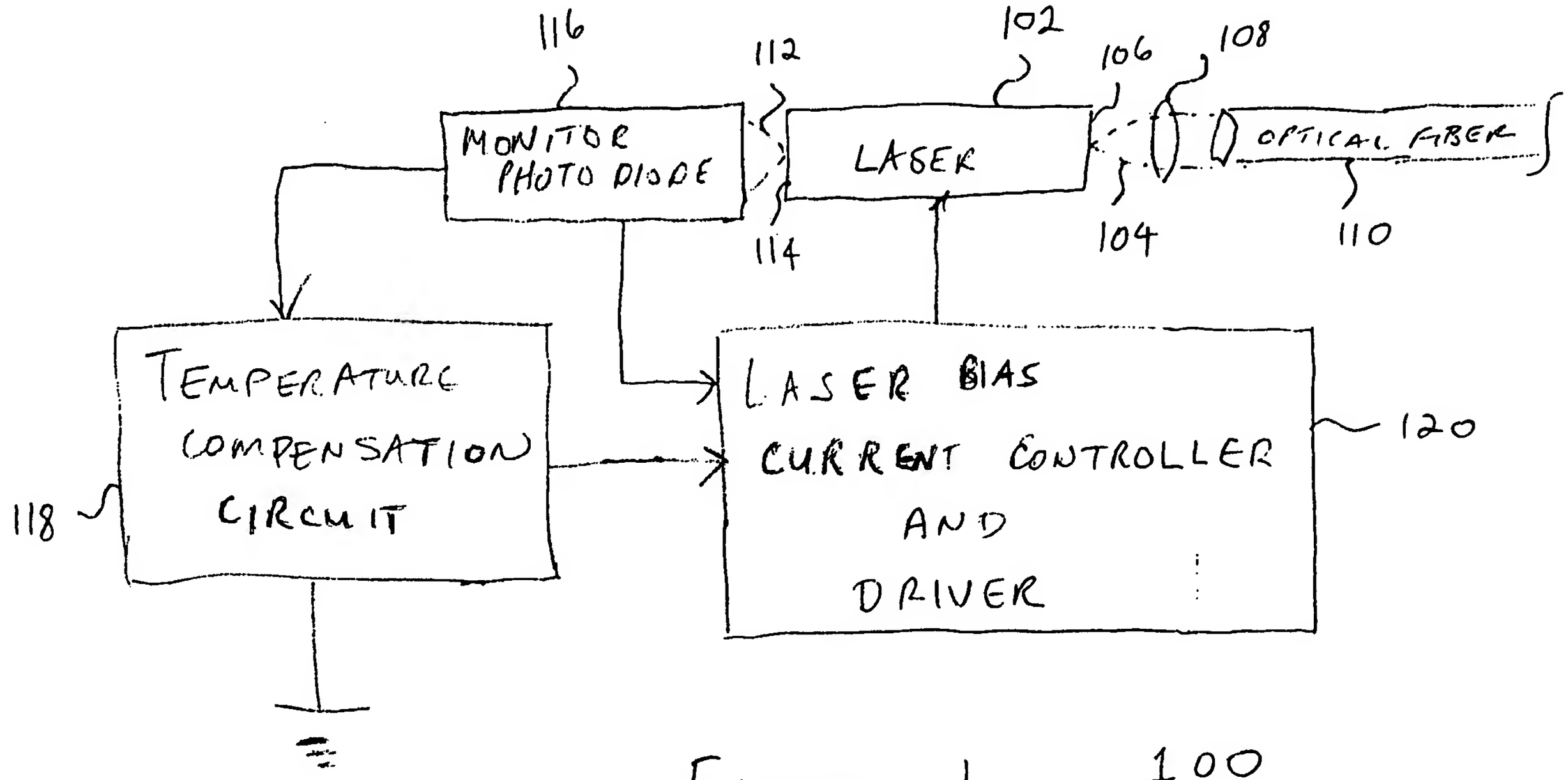
116
112
102
106
108
MONITOR PHOTO DIODE
LASER
OPTICAL FIBER
114
104
110
TEMPERATURE COMPENSATION CIRCUIT
118
LASER BIAS CURRENT CONTROLLER AND DRIVER
120

Figure 1 100

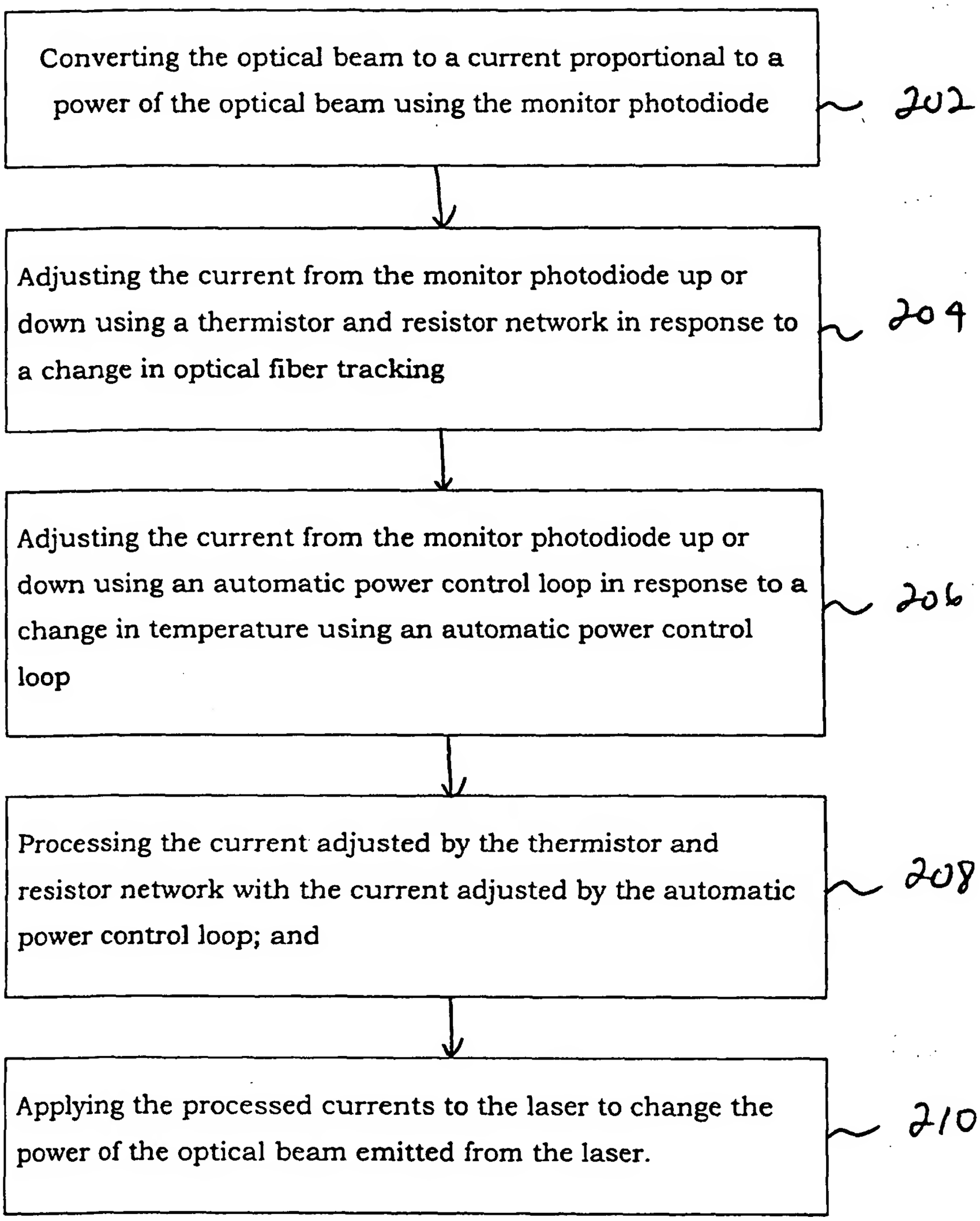
Converting the optical beam to a current proportional to a power of the optical beam using the monitor photodiode
202
Adjusting the current from the monitor photodiode up or down using a thermistor and resistor network in response to a change in optical fiber tracking
204
Adjusting the current from the monitor photodiode up or down using an automatic power control loop in response to a change in temperature using an automatic power control loop
206
Processing the current adjusted by the thermistor and resistor network with the current adjusted by the automatic power control loop; and
208
Applying the processed currents to the laser to change the power of the optical beam emitted from the laser.
210

Figure 2 200

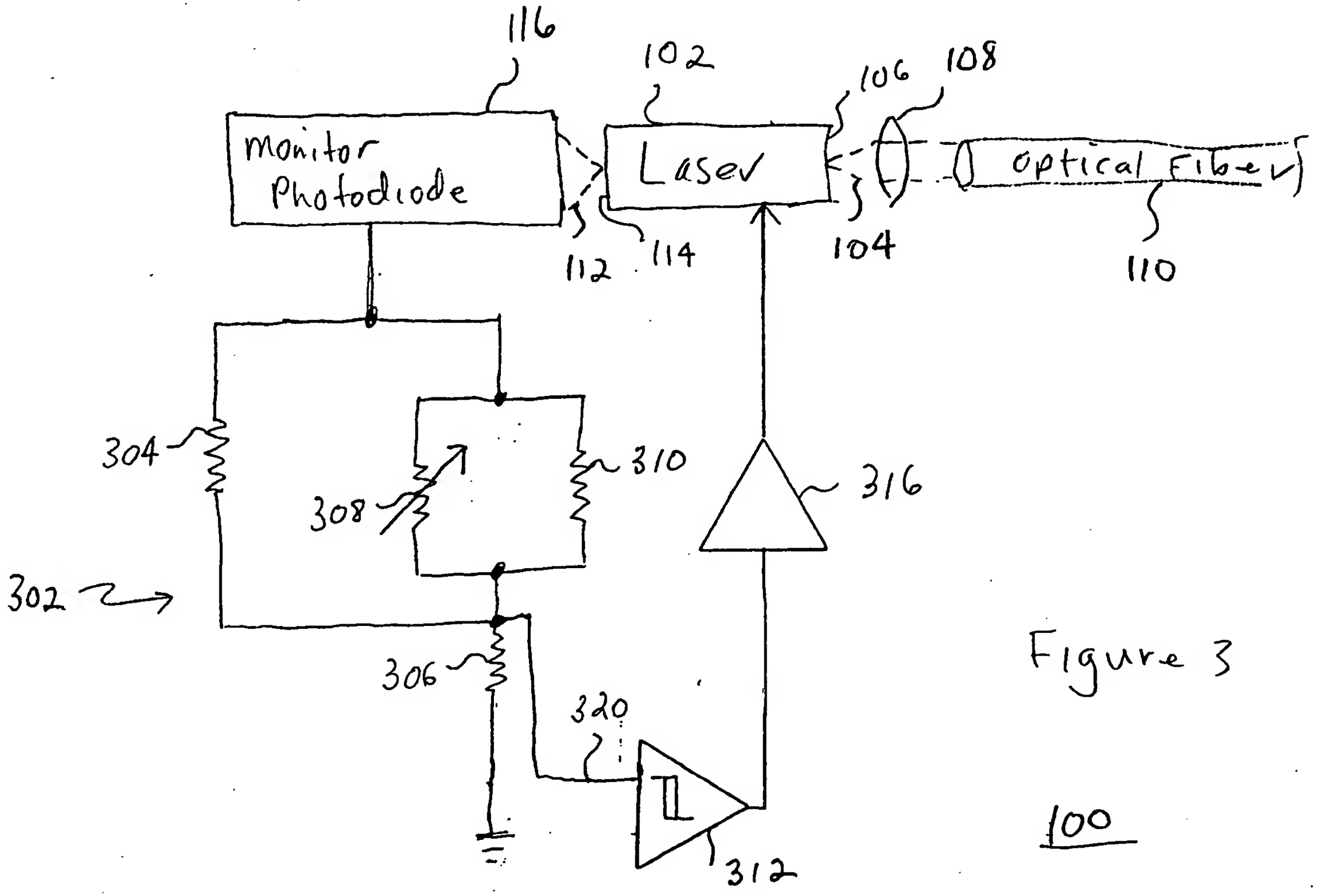
116
102
106
108
Monitor Photodiode
Laser
optical Fiber
112
114
104
110
304
310
308
316
302
306
320
312

Figure 3

100

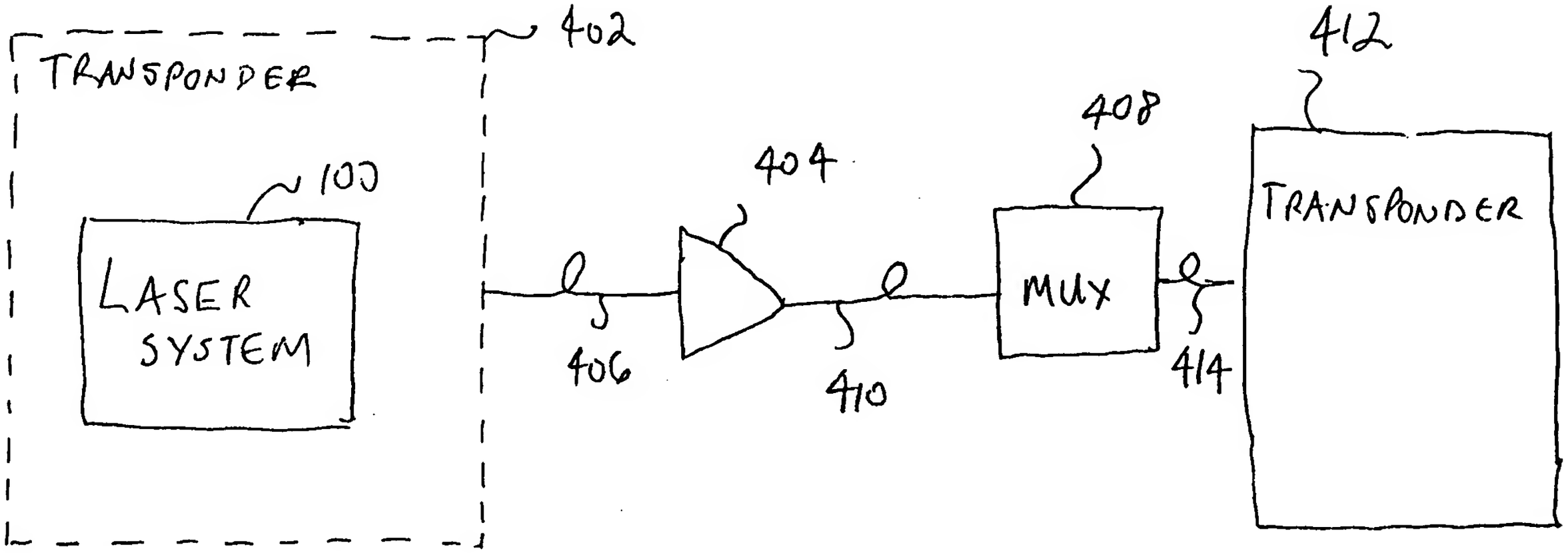
TRANSPONDER
402
100
LASER SYSTEM
404
406
410
408
MUX
412
TRANSPONDER
414

Figure 4 400

500

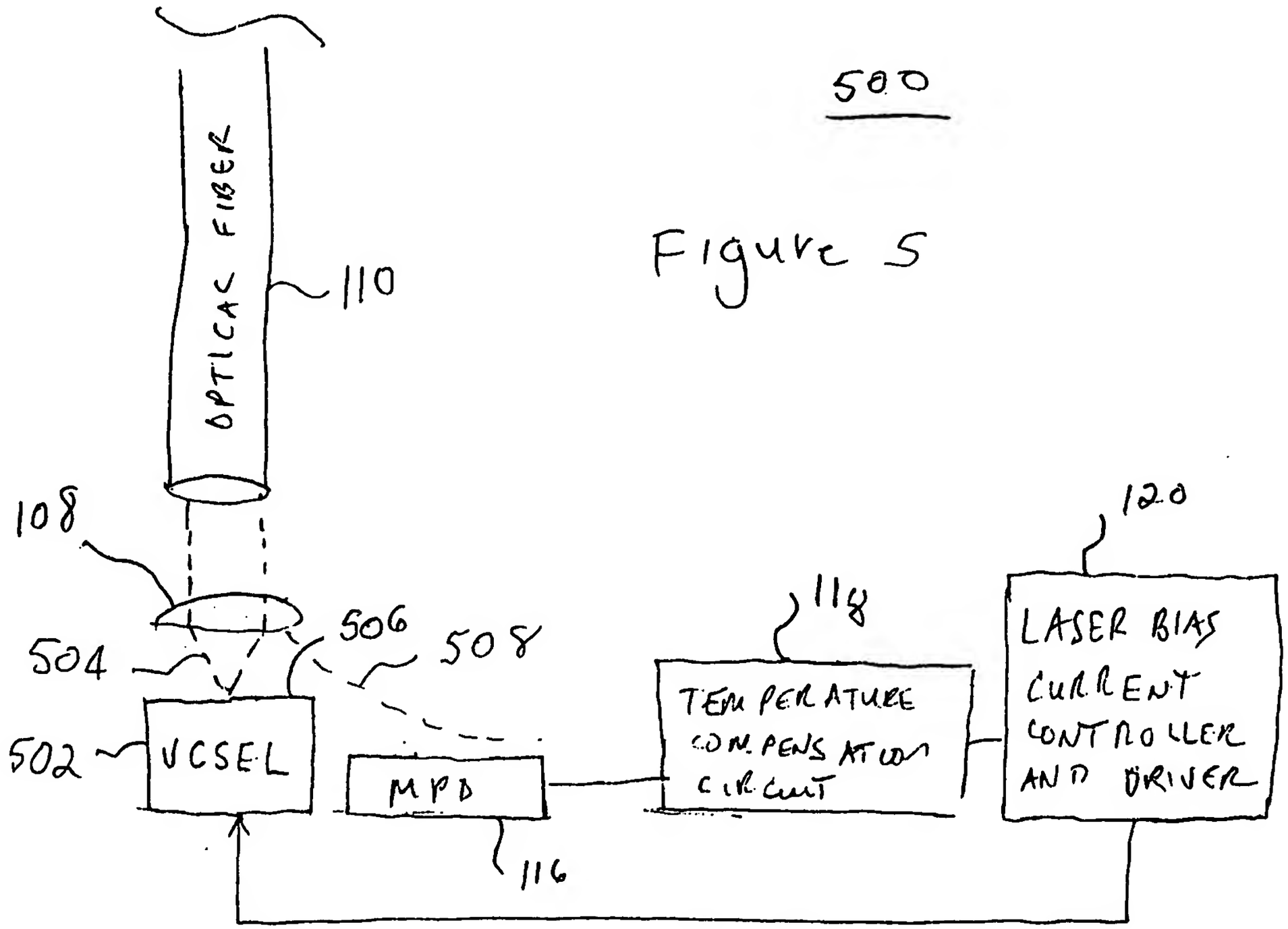
OPTICAL FIBER
110
108
504
506
508
502
VCSEL
MPD
116
118
TEMPERATURE COMPENSATION CIRCUIT
120
LASER BIAS CURRENT CONTROLLER AND DRIVER

Figure 5